

VMI - system

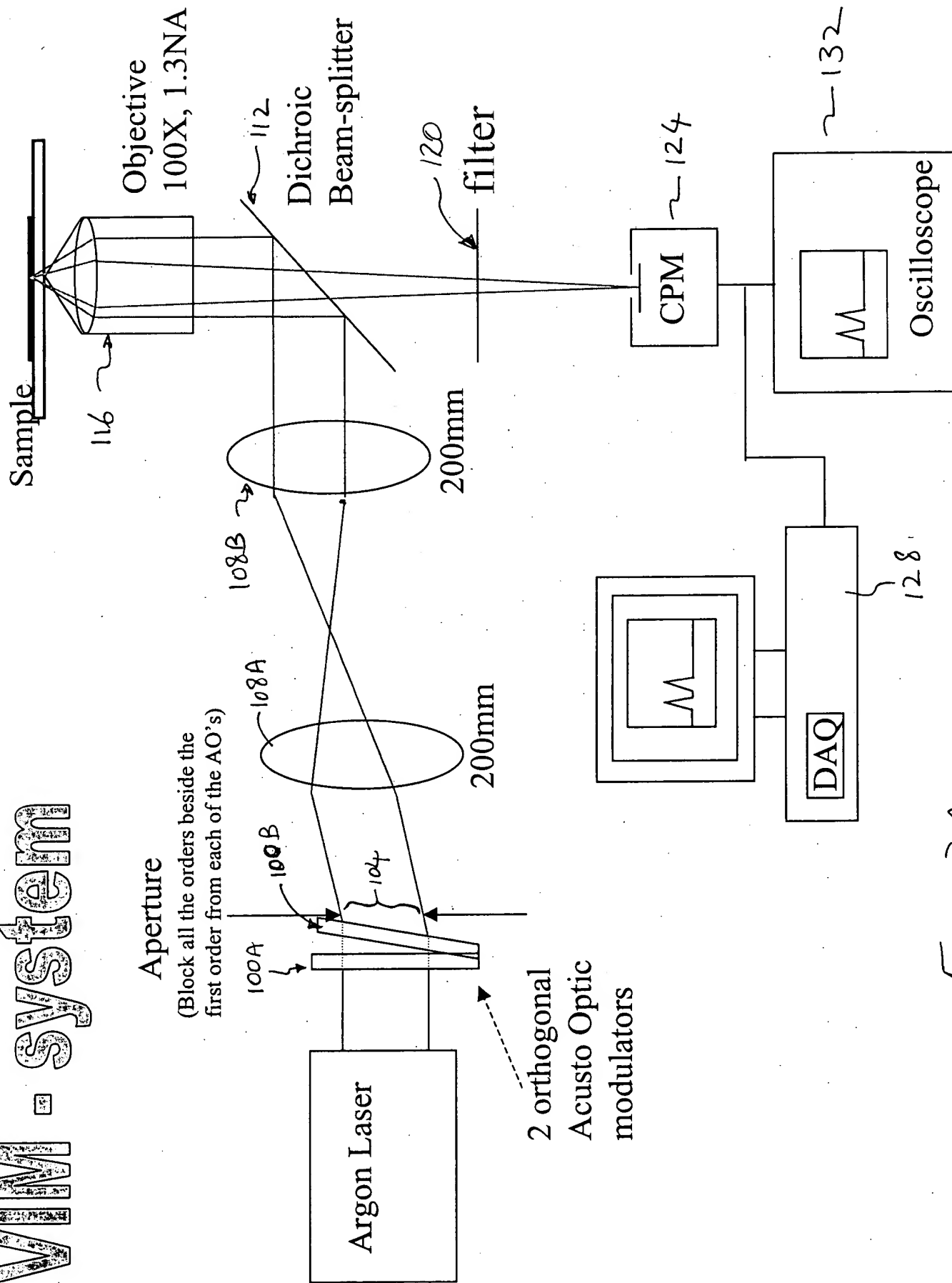
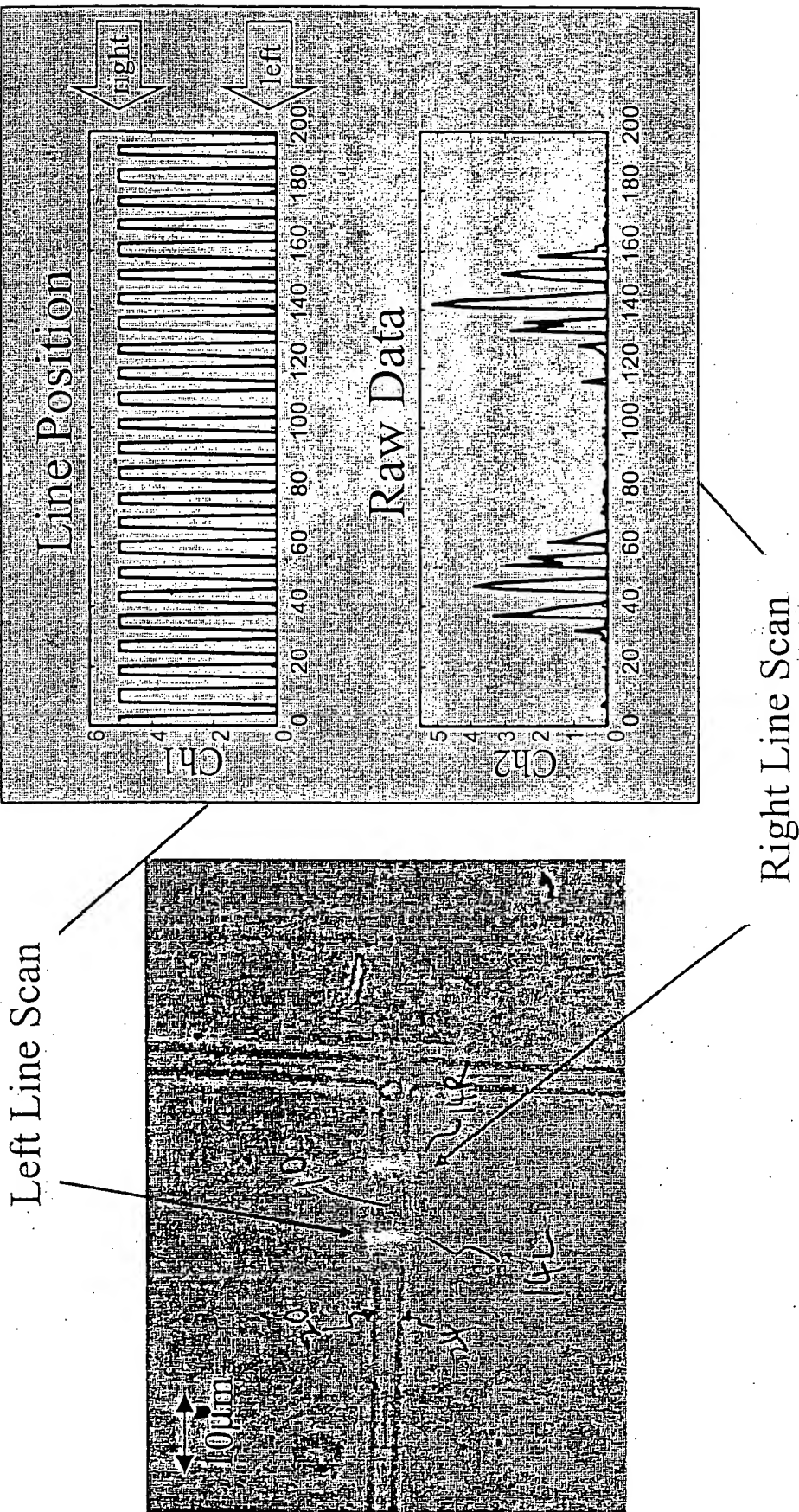


Fig 2A

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The beam after the two Acusto Optics Modulators

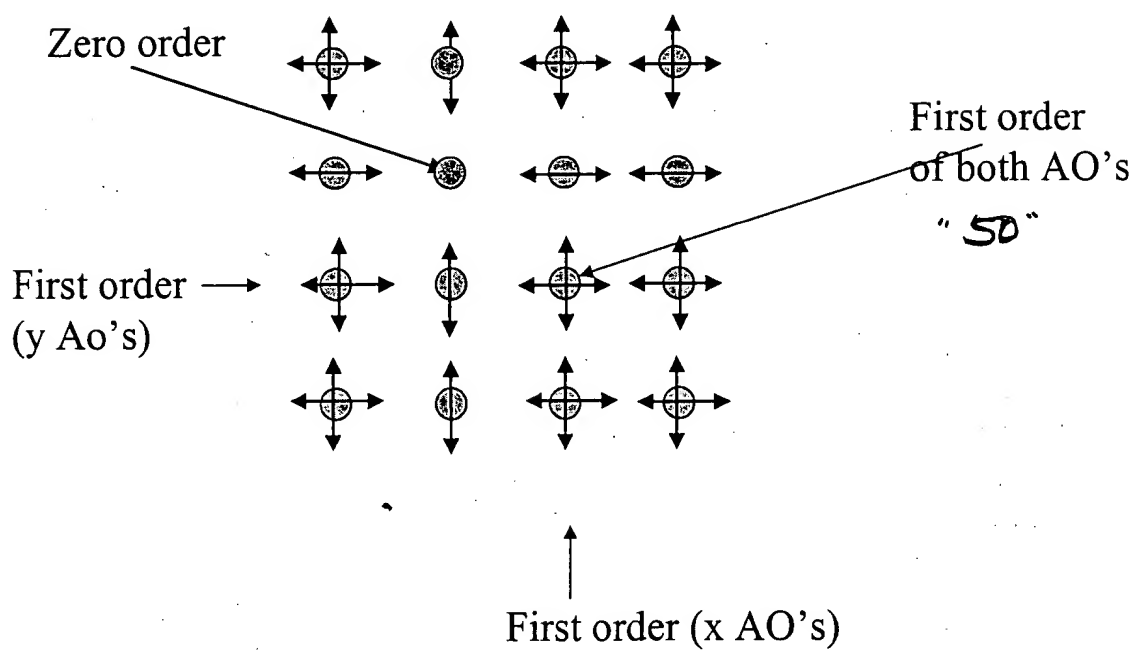


Fig 2C

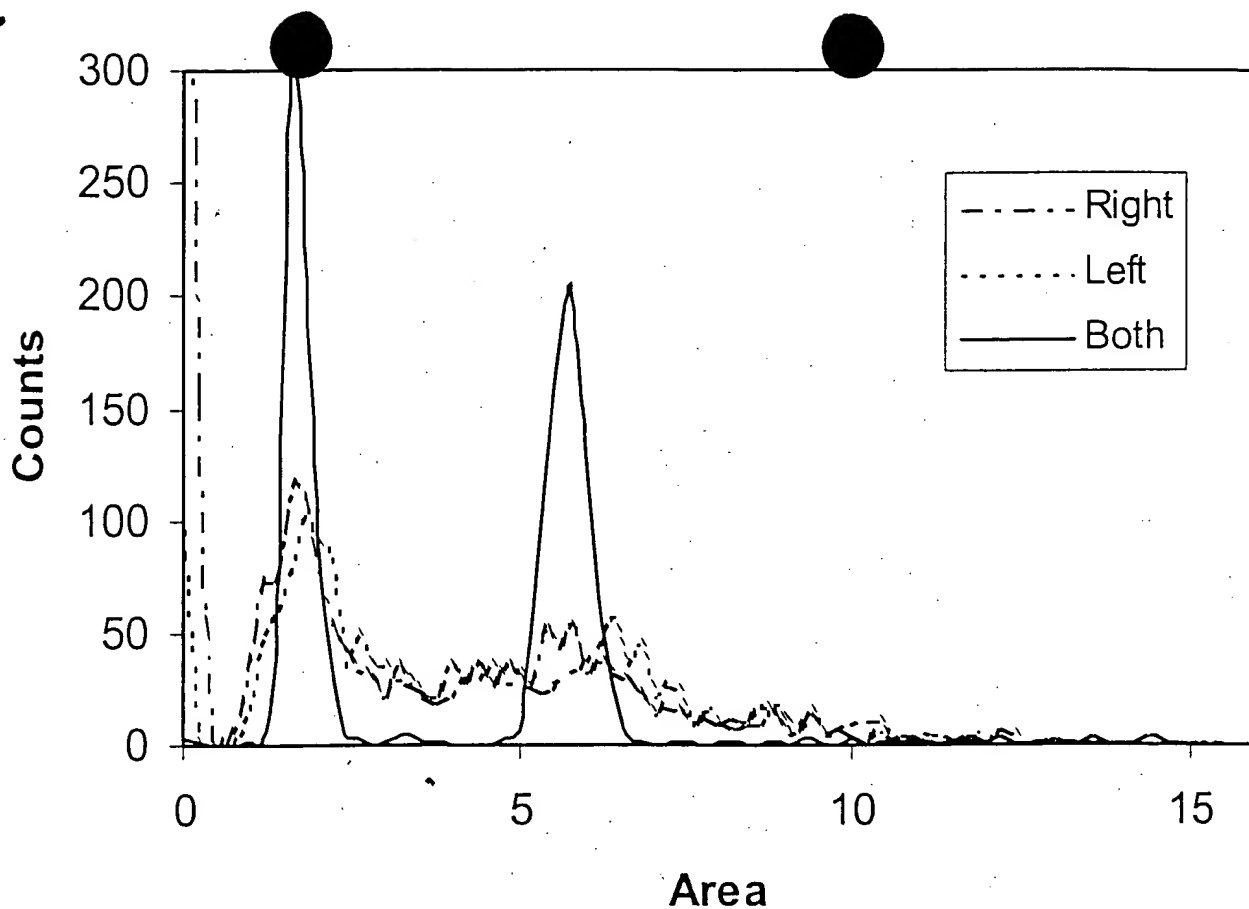


Fig 3

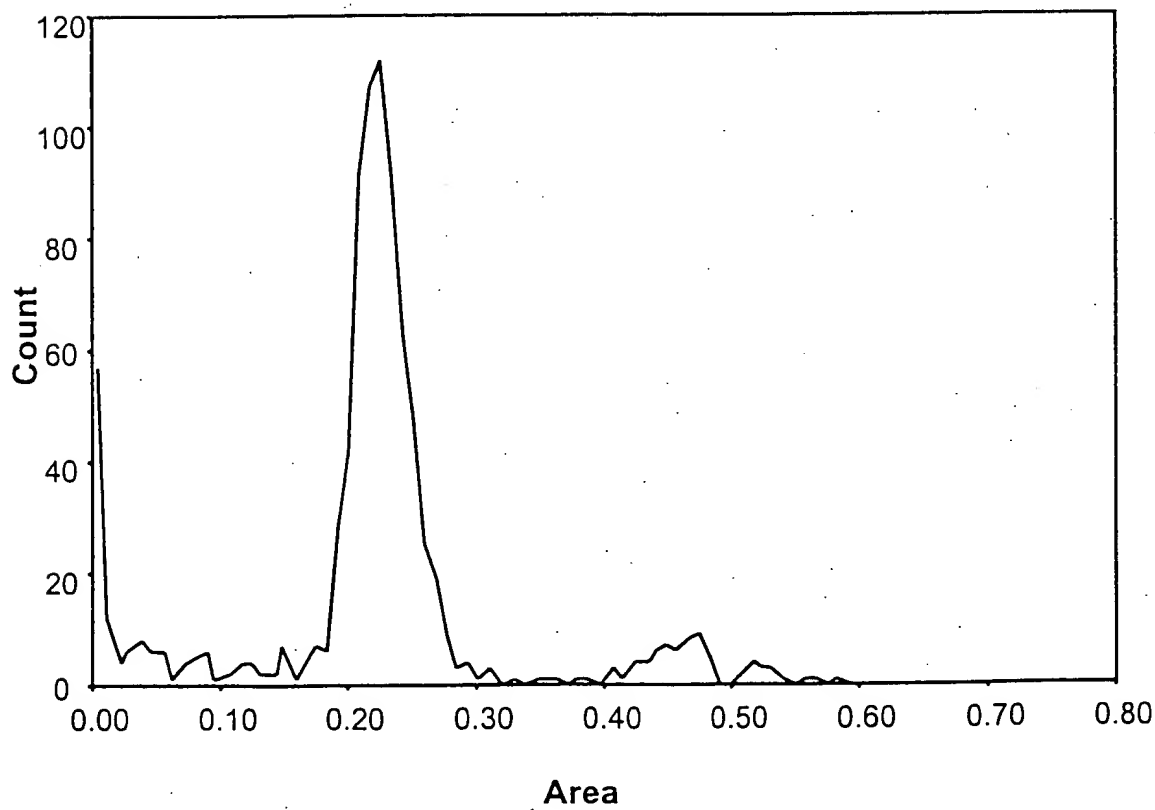
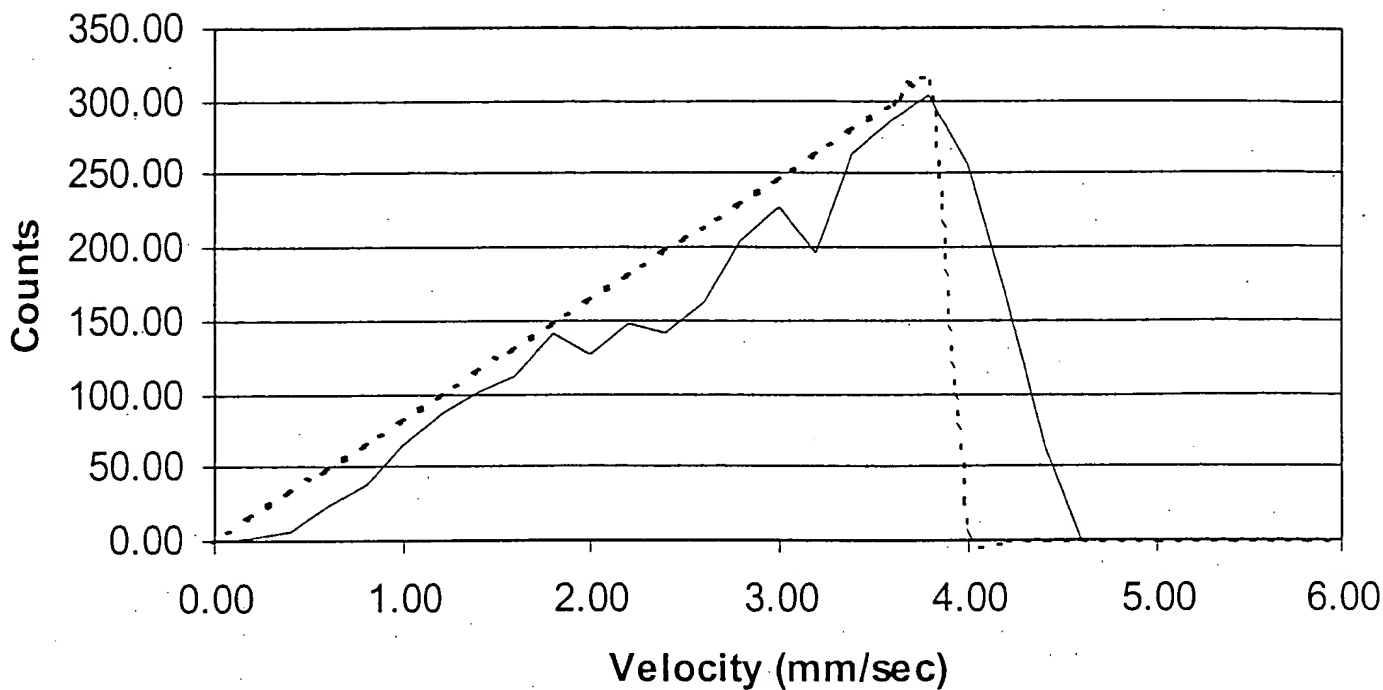


Fig 6

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— Experiment Theory

Fig 5

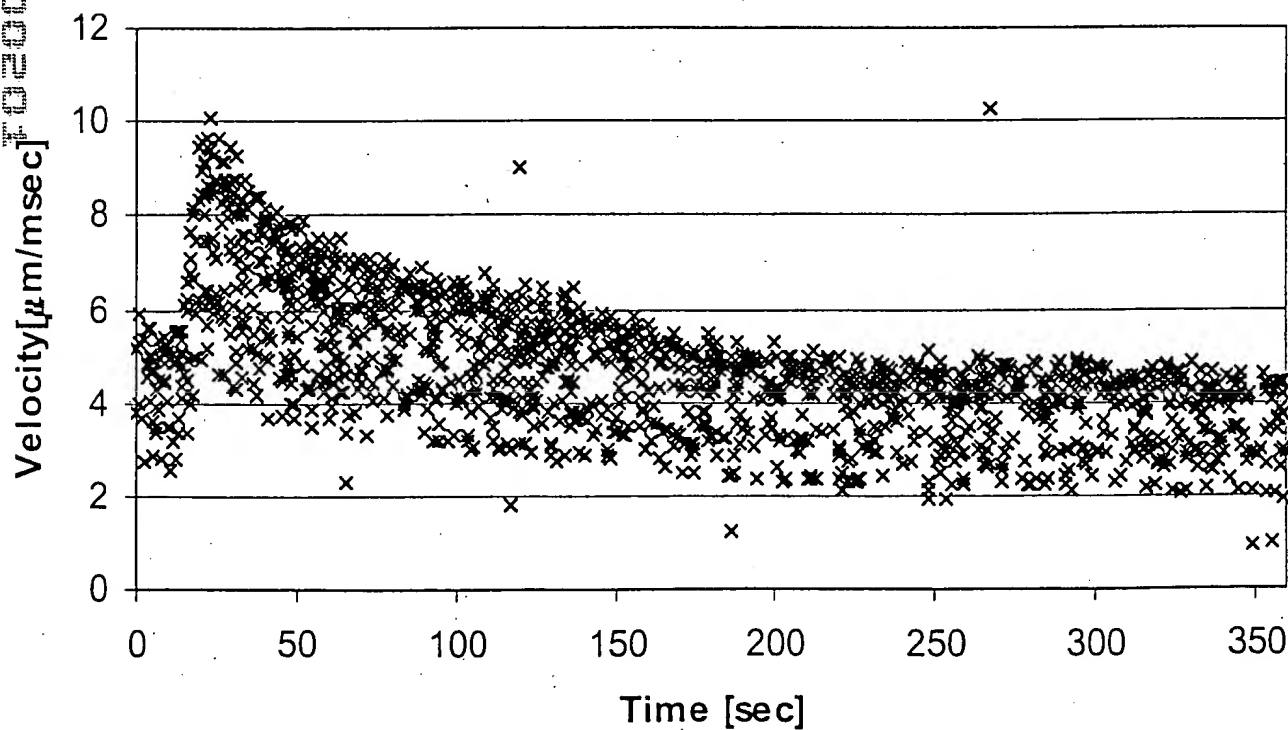


Fig 4

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ChDiv

Input - two vectors: $Y(i)$ - channel 1 - square wave - chopping signal, $0 \leq Y_i \leq 1$

$X(i)$ - channel 2 - fluorescence raw data - from the detecting region (both line scan)

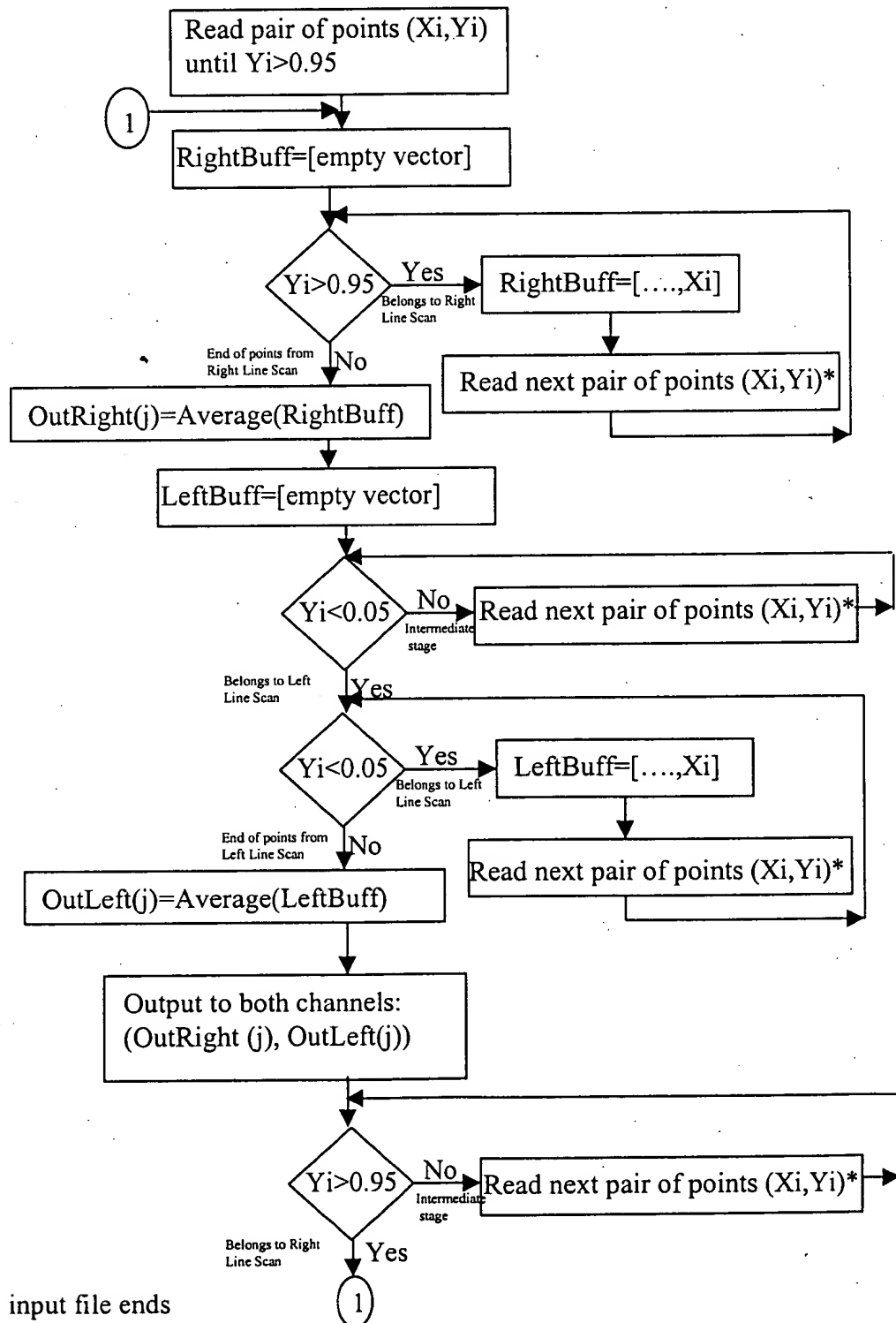
Usually Sampled
at 40KHz

Output - two vectors: $OutRight(j)$ - fluorescence from Right Line scan

$OutLeft(j)$ - fluorescence from Left Line scan

Usually Sampled
at 5KHz

The sampling rate of the output channels always equals the frequency of the chopping signal



* Program ends when input file ends

Fig 7

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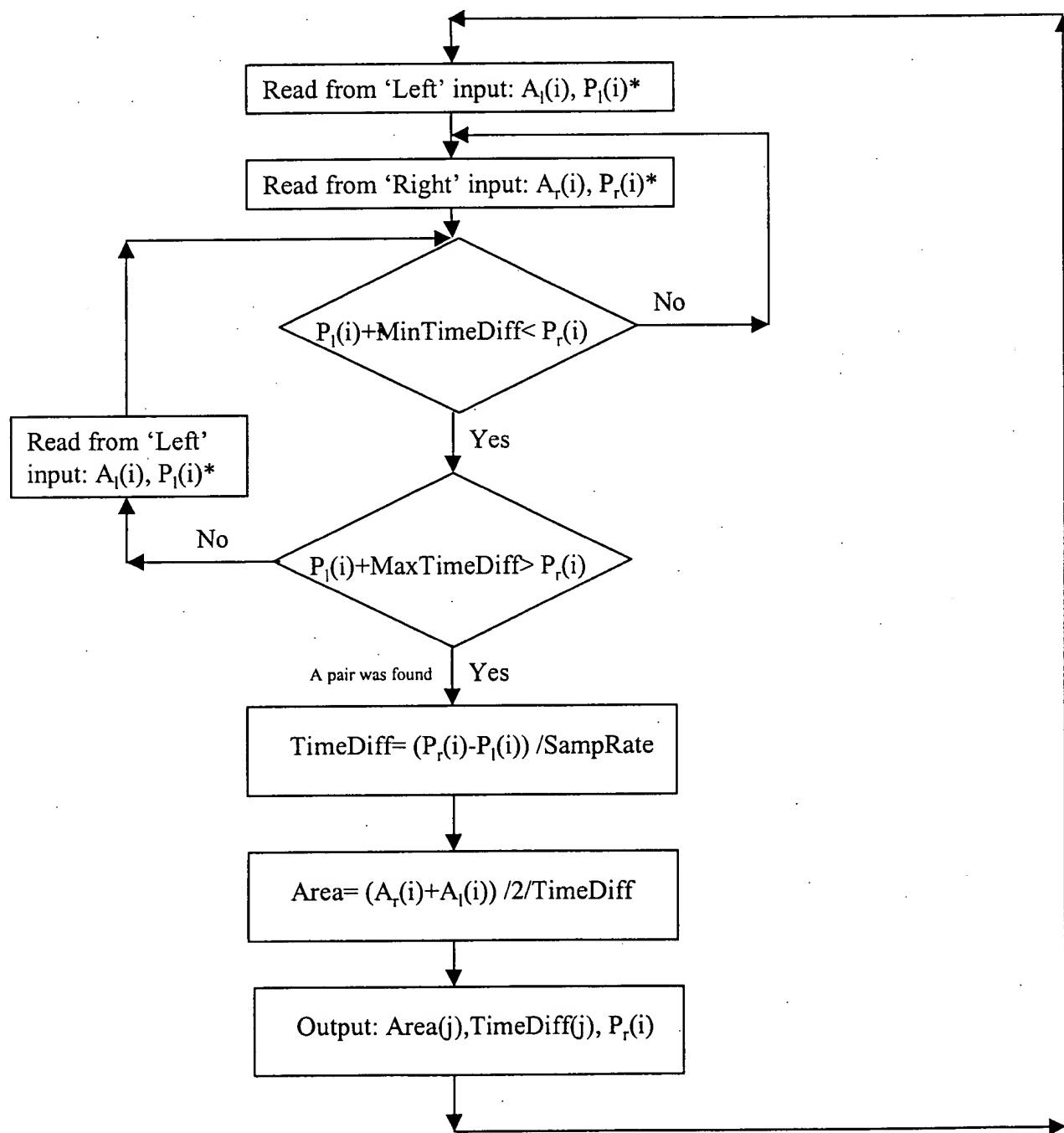
ArVlAnalyzer

Input: two files (one for each line scan).

Each file contain 2 vectors one of Positions ($P(i)$) and the other has the corresponding Area ($A(i)$)

Output: three vectors - Area, TimeDiff (inversely proportional to velocity), Position

Parameters that can be determined - MinTimeDiff, MaxTimeDiff



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Position is presented in point number and not time

TimeDiff is in Seconds and is inversely proportional to the velocity

* Program ends when one of the input files ends

Fig 8